3836077 RACD/M : MAJOR : COMMUNICATION DISORDERS ; M.A. (Communication disorders)
KEY WORD : STIMULUS REPETITION RATE / ABSOLUTE LATENCY/ INTERPEAK LATENCY

PANIDA TANAVIRATTANANIT : THE EFFECT OF STIMULUS REPETITION RATE ON THE AUDITORY BRAINSTEM RESPONSE IN NORMAL HEARING ADULTS : A NORMATIVE STUDY. THESIS ADVISORS : CHEAMCHIT THAWIL, B. Sc., M.A., SIRIPARN SRIWANYOUNG, B.A., M.B.A., M.S., URIRAT SUBUNVILAS, M.Sc. 68p. ISBN974-589-265-3.

ABR is one of the objective instrumentations used in the Speech and Hearing Clinic to estimate hearing threshold sensitivity and to evaluate integrity of auditory pathway. An increase in stimulus repetition rate affects ABR component. The purpose of this research was to study the effects of stimulus repetition rate on ABR in normal hearing adults. Thirty normal hearing adults served as subjects. Their ages ranged from 20-40 years. The instrument in this study was "Nicolet Compact Auditory Version-J". The stimuli were click at 90 dBnHL. The stimulus repetition rate were 11.4, 31.4, 51.4, 71.4, and 91.4/sec. The filter setting was at 150 to 3000 Hz. Rarefaction polarity was used in this study.

The results of this study showed that ABR component were changed as stimulus repetition rate increased. At high rate (91.4/sec), ABR waveform morphology showed greater and rounded peaks of wave III and V. The absolute latencies of wave I, III, V and interpeak latencies of wave I-III, III-V, I-V showed a progressive prolongation with increasing stimulus repetition rate. The latency shift was greatest for wave V and least for wave I. The mean increments of wave V latency was 0.6327 msec (SD=0.1199) when the response at 11.4/sec and 91.4/sec were compared. The latency-rate function of wave I, III, V appeared to be linearity. The slope of the linear latency-rate function for wave V was steeper than those of wave I and III. Female subjects had significantly shorter absolute latencies of wave I, III, V and interpeak latencies of wave III-V and I-V than male subjects. However, interpeak latency of wave I-III was not significantly different between both genders.